WAVLINK®

Wi-Fi Range Extender

Quick Installation Guide

REV.1

Open Source Code

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Introduction：

The Device is mainly used for providing free Wi-Fi service in big area such as factory, community, street or etc. The Device can take an existing 802.11n wireless signal, repeat and extend it to a longer range where it is too far away for the router or access point to reach. The device supports 2.4G wireless network connection, and it can supports 2.4G transmission speeds of up to 300Mbps. It has 2xAntennas providing even better wireless performance, transmission rates, stability technology automatically avoids channel conflicts using its channel selection feature.

Package Contents

Before you starting to use this router, please check if there's anything missing in the package, and contact your dealer of purchase to claim for missing items:

1 x Wi-Fi AP/Router (the Device)
1 x Quick Installation Guide
1 x RJ45 Cable (Optional)

01

Hardware Overview

Default Parameters

Default IP: 192.168.10.1   URL: http://ap.setup
Login Password: admin
Wi-Fi SSID: Wavlink-N   Wi-Fi Key: no

1 Power On/Off
2 WPS Button
3 Mode Selector
4 Reset Button
5 WAN/LAN Port
6 LAN Port
7 3 x Wi-Fi Single
8 Power/WPS LED
9 WAN/LAN LED
10 LAN LED

WPS Button:
Press 1-2 Seconds, Waiting your device Connection,
Press 6 Seconds, Connect to your AP/Router (on Repeater Mode)
Reset Button:
Press 3 Seconds Reset the Device.

02

LED indicators

POWER/WPS	**ON:** The Device is power on **OFF:** The Device is not receiving electrical power. **Slow Flashing:** The Device WPS Waiting Client connection **Fast Flashing:** The Device Connecting to your AP/Router
LAN WAN/LAN	**ON:** The Ethernet port is connected. **OFF:** The Ethernet port is disconnected. **Flashing:** Data Transferring

Wi-Fi Single

Mode				Description
AP/Router	ON	ON	ON	Wi-Fi Single output power 100%
Repeater	ON	ON	ON	Excellent reception signal strength 50% to 100%
	ON	ON	OFF	Good reception signal strength 25% to 50%
	ON	OFF	OFF	Weak reception signal strength below 25%
	Flashing	OFF	OFF	Disconnected

03

Getting Started

Setting up a Wireless Infrastructure Network
For a typical wireless setup at home (as shown below), please do the following:

Wireless AP Mode

The Device is connected to a wired network **then** transforms the wired Internet access into wireless so that multiple devices can share the Internet.
So this mode is fit for office, home and places where only wired network is available.

Wireless Repeater Mode

The Device is copies and reinforces the existing wireless signal to extend the coverage of the signal. This mode is especially useful for a large space to eliminate signal-blind corners.
So this mode is fit for large house, office, warehouse or other spaces where the existing signal is weak.

Router Mode

The Device is connected to a DSL or cable modem and works as a regular wireless router.
So this mode is fit for the environment which Internet access from DSL or cable modem is available for one user but more users need to share the Internet.

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Configure the Wi-Fi Repeater Mode

Configure the Wi-Fi Repeater Mode with WPS Button.
This is the easiest way to configure the Device. First, check whether your wireless router supports WPS. For further details, please read the operating instructions for your wireless router.

Quick and Easy

Tips: If you want to keep the stable connection between your router and our repeater at REPEATER mode, Please install our Repeater at a suitable position.
You can check the suitable position as the followings:
Check the signal indicator on the repeater, if the LED is below 2 levels, please find new place.
OR You can check the Wi-Fi signal on your smartphone, if the signal is below 2 levels, we suggest to change the location of our repeater

1.The mode selector must be set to the **"Repeater"** position for Repeater Mode.
2.Plug the Device into a wall socket.
3.Press the WPS button on the Device for **6** seconds.
The WPS LED fast flashing for approx. 2 minutes.
4.Within these 2 minutes, please Press the WPS button of your Wireless Router directly for **2 - 3** seconds. (For further details, please read the operating instructions for your wireless router.)

The Device then automatically connect to your wireless router and copies wireless key of the settings. The device Wi-Fi Password same your AP/Router. After the reboot has been completed, please go to your device WLAN setting, connect to new SSID.

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You can configure the Wi-Fi Repeater Mode by connecting it with your computer/laptop with enclosed RJ45 cable or wirelessly.

A. Configure the Wi-Fi Repeater Mode wirelessly.

A1. The mode selector must be set to the **"Repeater"** position for Repeater Mode. Plug the device into a wall socket.

A2. Click on the network icon (or) on the right bottom of your desktop. You will find the signal from the **Wireless-N.** Click on **'Connect'** then wait for a few seconds.
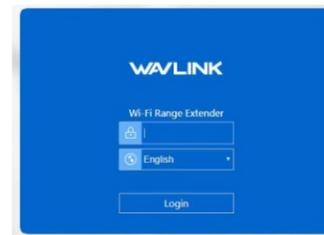
A3. Open web browser and type **http://192.168.10.1** or **http://ap.setup** in the browser address box. This number is the default IP address for this device.

Note: Please check whether the Device accord with factory default settings once you can't entered **http://192.168.10.1** or **http://ap.setup** . If you are still not sure what reasons, you can reset the Device, just need to press the **reset** button for **3** seconds, then try again.

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A4. The login screen below will appear. Enter the Password then click **"Login"** to login.
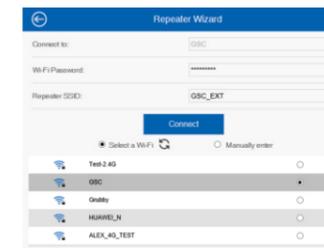The default Password is **"admin"**.

A5. After logging in, you will see the web page below, click on the **Wizard**

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A6. From the list, select a Wi-Fi SSID. After having selected a Wi-Fi SSID, you must then specify the password of your wireless router.

Completing the entry, click on the **"Connect"** button.
After the reboot has been completed, please go to your device WLAN setting, connect to new Wi-Fi SSID.
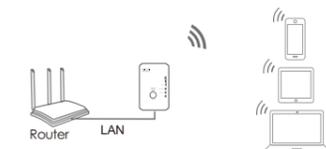
B. Configure the Wi-Fi Repeater Mode with RJ45 Cable.

1.Plug the Device into a wall socket. Connect your computer / laptop with the Device with RJ45 Cable.
2.Follow process A3 to A7 to configure the Device.
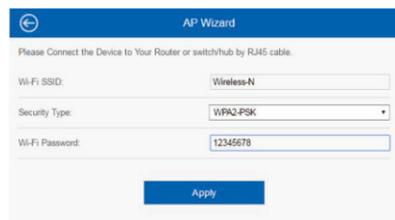
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Configure the Wi-Fi AP Mode

Use the AP Mode to obtain a "wireless access point". The wireless end devices will connect to the Device in this mode. You can also use this mode, for example, to make a formerly non-wireless-enabled router wireless-enabled.

1.The mode selector must be set to the **"Access Point"** position for AP Mode.
2.Plug the Device into a wall socket.
3.Follow process **A2** to **A5**.

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The following message will be displayed on your web browser:

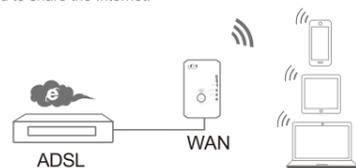| SSID	Wireless SSID of the Device
Security type	Setup the wireless security and encryption to prevent from unauthorized access and monitoring. Supports WPA, WPA2, WPA/WPA2 encryption methods.
Security key	The **"Wi-Fi Password"** of the Device

Click on **'Apply'** button, The Device will restart.

After the reboot has been completed, please go to your device WLAN setting, connect to new Wi-Fi SSID.

Configure the Wi-Fi Router Mode

The Device is connected to a DSL or cable modem and works as a regular wireless router.
Internet access from DSL or cable modem is available for one user but more users need to share the Internet.
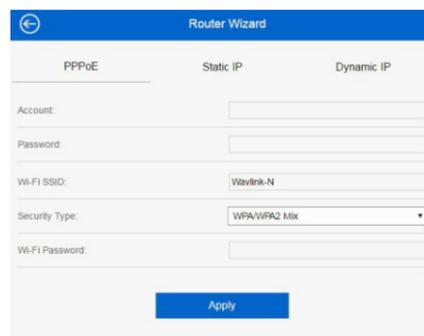

ADSL   WAN

1. The mode selector must be set to the "Router" position for Router Mode.
2. Plug the Device into a wall socket
3. Connect your DSL Modem with the Device with RJ45 Cable
4. Follow process A3 to A5.
5. Click on the Router button

Choose your WAN Connection Type.

If PPPoE (ADSL Dial-up) is selected, please enter the **User Name and Password** from your ISP, These fields are case-sensitive.
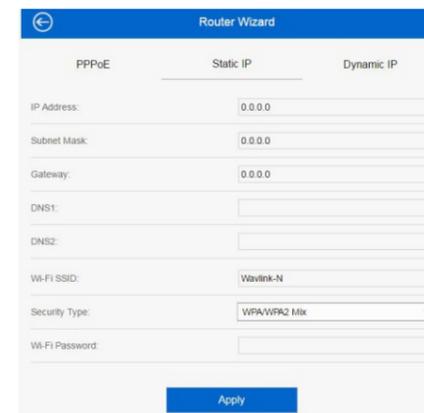

Enter the Device wireless parameter. It's recommended that you rename an **SSID**, choose a **Security Mode** and enter a **Wi-Fi Password.**

SSID	The **"SSID"** of the Device
Security type	Setup the wireless security and encryption to prevent from unauthorized access and monitoring. Supports WPA, WPA2, WPA/WPA2 encryption methods.
Security key	The **"Wi-Fi Password"** of the Device

If **Static IP** is selected, please enter the **IP Address, Subnet Mask, Default Gateway**, DNS,etc.

Enter the Device wireless parameter. It's recommended that you rename an **SSID**, choose a **Security Mode** and enter a **Wi-Fi Password.**

Click **'Apply'** button, It will restart.
Wait for a few seconds the Device is ready for use.

If **Dynamic IP** is selected, the Device gets the IP address automatically from your Router or ISP DHCP serve. No configuration should be set and you can go on with the wireless configuration.
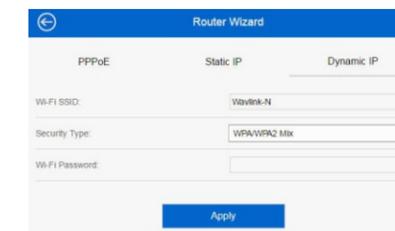

Enter the Device wireless parameter. It's recommended that you rename an **SSID**, choose a **Security Mode** and enter a **Wi-Fi Password.**

Click **'Apply'** button, It will restart.
Wait for a few seconds the Device is ready for use.

Management via Web Browser

Wireless Base Configuration
Please follow the following instructions: Click **"Wi-Fi -> Wi-Fi Setup"** located at the web management interface, the following message will be displayed on your web browser:

You could configure the basic setting of Wireless settings for communication, such as Network Name **(SSID)** . The Access Point can be set simply with only the minimum setting items.

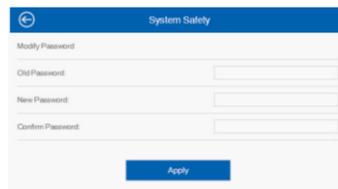| Wireless Status	Wireless On/Off
SSID	Wireless SSID of the Device
Security type	Setup the Wireless security and encryption to prevent from unauthorized access and monitoring. Supports WPA, WPA2, WPA/WPA2 encryption methods.
Security key	The **"Password"** of the AP/Router

Click **'Apply'** button, The Device will restart.

Change Management password

Default password of the device is **"admin"**, and it's displayed on the login prompt when accessed from web browser. There's a security risk if you don't change the default password, since everyone can see it. This is very important when you have wireless function enabled.

To change password, please follow the following instructions:
Please click **"Setup-> System Safety"** menu on the web management interface, the following message will be displayed on your web browser:

Click **'Apply'** button, The Device will log off.

Firmware Upgrade

The system software used by this router is called **'firmware'**, just like any applications on your computer, when you replace the old application with a new one, your computer will be equipped with new function. You can also use this firmware upgrade function to add new functions to your router, even fix the bugs of this router.

Please click **'Setup-> Upgrade Firmware'** located at the web management interface, and then the following message will be displayed on your web browser:

Click **'Browse…'** or **'Choose File'** button first; you'll be prompted to provide the filename of firmware upgrade file. Please download the latest firmware file from our website, and use it to upgrade your router.

After a firmware upgrade file is selected, click 'Apply' button, and the device will start firmware upgrade procedure automatically.
The procedure may take several minutes, please be patient.

NOTE: Never interrupt the upgrade procedure by closing the web browser or physically disconnect your computer from the device. If the firmware you uploaded is interrupt, the firmware upgrade will fail, and you may have to return the device to the dealer of purchase to ask for help.

Warranty voids if you interrupted the upgrade procedure.

How to connect your computer/laptop with the Device

Adding a Wireless computers to the device

1. Log on to the computer.

2. Open Connect to a Network by right-clicking the network icon (or) in the notification area.

3. Choose the wireless network from the list that appears, and then click **Connect.**

4. Type the network security key or passphrase if you are asked to do so, and then click **OK**. You'll see a confirmation message when you are connected to the network.

5. To confirm that you added the computer, do the following:
Open Network by clicking the **Start** button , and then clicking **Control Panel.** In the search box, type **network**, and then, under Network and Sharing Center, click **View network computers and devices.** You should see icons for the computer you added and for the other computers and devices that are part of the network.

Note: If you don't see icons in the Network folder, then network discovery and file sharing might be turned off.

Adding a Wireless computers to the Device with WPS Button

This is the easiest way to establish a connection to the AP. First, check whether your end device supports WPS. For further details, please read the operating instructions for your end device.
1. Log on to the computer.
2. Press the WPS button on the device for **2** seconds. The WPS LED now flashes for approx. 2 minutes.
3. Within these 2 minutes, please press the connection button (WPS) on your end device. (For further details, please read the operating instructions for your end device.)
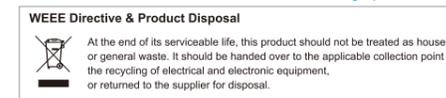Your end device then automatically connects to the Device and applies all of the settings. You should see icons for the computer you added and for the other computers and devices that are part of the network.

Adding a wired (Ethernet) computer to the Device

1. Plug the device to a socket. Connect your computer / laptop with the device with enclosed RJ45 Cable.
2. To Confirm that you added the computer, do the following:
Open Network by clicking the **Start** button , and then clicking **Control Panel.** In the search box, type **network**, and then, under Network and Sharing Center, click **View network computers and devices.** You should see icons for the computer you added and for the other computers and devices that are part of the network.

For more information:
http://windows.microsoft.com/en-US/windows7/Add-a-device-or-computer-to-a-network
http://windows.microsoft.com/en-US/windows7/Setting-up-a-wireless-network
http://windows.microsoft.com/en-US/windows-vista/Setting-up-a-wireless-network

WEEE Directive & Product Disposal
At the end of its serviceable life, this product should not be treated as household or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment, or returned to the supplier for disposal.